REMARKS

Claims 1-10, 12-66, and 68-131 are pending in this application.

Applicants have amended claims 69 and 110 in order to more particularly define the invention. The amendments were not necessitated by the claim rejections. Applicants make no admission as to the patentability or unpatentability of the originally filed claims.

Claim 110 was amended merely to correct a typographical error.

In the Office Action mailed on June 22, 2006, the Examiner rejected all pending claims under 35 USC 103(a) as being unpatentable over Grefenstette et al. in view of Chidlovskii et al. This rejection is respectfully traversed.

Claim 1 recites:

> "A computer-implemented method for unconscious data retrieval, comprising:
> extracting at least one query key from a primary document;
> responsive to a connection with at least one data source being available, prefetching at least one query result by:
> querying the at least one data source with the at least one query key; and
> receiving at least one query result from at least one data source;
> evaluating the received at least one query result; and
> displaying at least one received query result;
> wherein extracting, querying, receiving, and evaluating are performed asynchronously with respect to user interaction with the primary document;
> and wherein displaying the at least one received query result is performed without regard to whether a connection with a data source is available."

The claimed method performs unconscious data retrieval with respect to a document. One or more one query keys are extracted from the document. One or more query results are pre-fetched in response to a connection to at least one data source being available. This pre-fetching is done by querying the data source(s) with the query key(s) and receiving query result(s) from the data source(s). Query result(s) are then evaluated and displayed. The steps of extracting query key(s), querying data source(s), receiving query result(s), and evaluating query result(s) are performed asynchronously with respect to user interaction with the document. Thus, extraction, querying, receiving and evaluation can take place at times when the user is or is not interacting with the document; for example, such actions can take place at times when a connection of sufficient bandwidth is available and/or inexpensive. Furthermore, displaying the query result(s) is performed without regard to whether a connection with a data source is available. For example, the query result(s) can be displayed even if no connection is currently available.

In this manner, the method of the present invention provides a novel mechanism for obtaining, evaluating, and presenting useful information to a user. Information can be obtained via pre-fetching in an asynchronous manner; the user need not initiate the transfer, nor need he/she even be aware that information transfer is taking place. The information can be presented to the user at a later time or date, even if no data source connection is available at the time.

In the Office Action, the Examiner agreed that Grefenstette does not explicitly teach certain limitations recited in claim 1, namely: "responsive to a connection with at least one data source being available, pre-fetching at least one query result"; "[wherein extracting, querying, receiving, and evaluating are performed] asynchronously with respect to user interaction with the primary document", and "wherein displaying the at least one received query result is performed without regard to whether a connection with a data source is available." The Examiner asserts that Chidlovskii teaches these limitations, and that therefore the Grefenstette and Chidlovskii references, taken in combination, render the claimed invention unpatentable.

On the contrary, Chidlovskii fails to teach the cited limitations. Chidlovskii merely describes a mechanism for collaborative ranking of search results. A search pre-processor determines context of a search query by comparing terms in the query with a predetermined user context profile. A post-processor ranks search results in accordance with the determined context.

In Chidlovskii, the pre-processing and post-processing operations are performed in direct response to a user's action in initiating a search. See, for example, col. 8, lines 35-41: "Once a user has formulated a query, the search pre-processor takes the query and processes the keywords in the query to a query profile .... This profile is used by the search post-processor later. When the query is submitted to a search engine and the search result returns, the user sees the documents determined

from the search query, listed or ranked in accordance with the algorithm provided by the particular search engine(s), if any."

Since the pre- and post-processing takes place in direct response to a user's action in initiating a search, Chidlovskii fails to teach any technique of pre-fetching at least one query result. Furthermore, Chidlovskii operates in response to user action and therefore cannot be considered to performing extracting, querying, receiving, and evaluating asynchronously with respect to user interaction, as claimed herein. Finally, there is no mention anywhere in Chidlovskii of displaying query results without regard to whether a connection with a data source is available, as claimed herein.

In fact, Chidlovskii actually teaches away from the claimed invention, by explicitly discussing a technique for performing pre- and post-processing in response to a user-entered query and ranking results after receiving the query.

In col. 9, lines 22-28, Chidlovskii states, "Since the profile-based document re-ranking takes some time (needed for the documents down-loading, term extraction and rank calculation), the user may request for re-ranking, switch to other activity (or continue search) and return back to re-ranked results later. Alternatively, the user may request persistent queries, when user queries are executed off-line." However, this portion of Chidlovskii explicitly reinforces these operations are done in response

to specific user requests. There is no hint or suggestion of any technique that operates asynchronously with respect to user interaction, as claimed herein.

The mere mention that queries can be executed "off-line" or that queries are "persistent" does not constitute a teaching of the asynchronously performed steps (extracting, querying, receiving, and evaluating) claimed herein. In fact, such language teaches away from the claimed invention. "Off-line" means not connected to a network; thus Chidlovskii statement that queries can be executed "off-line" indicates that such queries would be executed when the computer is not connected to a network. By contrast, the claimed invention explicitly states that the querying step takes place "responsive to a connection with at least one data source being available." Thus, the present invention performs queries when connected, while Chidlovskii performs queries when off-line (not connected). Accordingly, Chidlovskii's discussion of "off-line" execution of "persistent" queries is respectfully submitted to teach away from the claimed invention.

The Examiner also cited col. 7, lines 56-64 of Chidlovskii. However, this section of Chidlovskii merely discusses updating of a community profile, stating that it is preferable to update the profile off-line because such an update is processor time-consuming. This description is not relevant to the claimed invention; the profile update of Chidlovskii is entirely unrelated to the pre-fetching of a query result claimed herein.

Accordingly, it is respectfully submitted that claim 1 is patentably distinct from the cited references, taken alone or in any combination.

Claims 2-10, 12, 18-29, 32-54, and 56-60 depend from claim 1 and incorporate all of the limitations of claim 1. Accordingly, for at least the reasons set forth above, these dependent claims are submitted to be patentably distinct from the cited references.

Claim 13 recites:

> "A computer-implemented method for unconscious data retrieval, comprising:
> extracting at least one query key from a primary document;
> querying at least one data source with the at least one query key;
> receiving at least one query result from at least one data source;
> evaluating the received at least one query result;
> storing the evaluated at least one query result; and
> subsequently performing the steps of:
> receiving a query request from a user;
> displaying a preview of at least one query result item responsive to the received query request;
> receiving a selection of one of the previewed items;
> retrieving the selected item; and
> displaying a representation of the selected item;
> wherein extracting, querying, receiving, and evaluating are performed without user interaction.

The claimed method performs unconscious data retrieval with respect to a document. One or more one query keys are extracted from the document. A data source is queried with the query key(s), and one or more query results are received. Query result(s) are then evaluated and stored. Subsequently, upon receiving a query

request from a user, a previous of one or more query results is displayed. A selection is received of one of the previewed items. The selected item is retrieved and a representation of the item is displayed.

The steps of extracting query key(s), querying data source(s), receiving query result(s), and evaluating query result(s) are performed asynchronously with respect to user interaction with the document, and are performed prior to receiving the query request from the user. Thus, extraction, querying, receiving, and evaluation can take place at times when the user is or is not interacting with the document; for example, such actions can take place at times when a connection of sufficient bandwidth is available and/or inexpensive.

In this manner, the method of the present invention provides a novel mechanism for obtaining, evaluating, and presenting useful information to a user. Information can be obtained prior to receiving the query from the user and in an asynchronous manner; the user need not initiate the transfer, nor need he/she even be aware that information transfer is taking place. The information is presented to the user at a later time or date.

In the Office Action, the Examiner stated that claim 13 is rejected on grounds corresponding to the arguments given for rejected claim 1. Accordingly, for at least the reasons given above in connection with claim 1, claim 13 is submitted to be patentably distinct over the cited references.

In addition, claim 13 specifically recites that the query request is received from the user subsequent to the query key being extracted and the query result being received and stored. Neither of the cited references teaches or discloses such a technique. In fact, as noted above, Chidlovskii teaches pre-processing and post-processing operations that are performed in direct response to a user's action in initiating a search. See, for example, col. 8, lines 35-41: "Once a user has formulated a query, the search pre-processor takes the query and processes the keywords in the query to a query profile .... This profile is used by the search post-processor later. When the query is submitted to a search engine and the search result returns, the user sees the documents determined from the search query, listed or ranked in accordance with the algorithm provided by the particular search engine(s), if any."

Since the pre- and post-processing takes place in direct response to a user's action in initiating a search, Chidlovskii fails to teach any technique of performing query operations prior to receiving a query request from the user.

In fact, Chidlovskii actually teaches away from the claimed invention, by explicitly discussing a technique for performing pre- and post-processing in response to a user-entered query and ranking results after receiving the query.

Accordingly, it is respectfully submitted that claim 13 is patentably distinct from the cited references, taken alone or in any combination.

Claims 14-17 depend from claim 13 and incorporate all of the limitations of claim 13. Accordingly, for at least the reasons set forth above, these dependent claims are submitted to be patentably distinct from the cited references.

Claim 30 recites:

> "A computer-implemented method for unconscious data retrieval, comprising:
> extracting at least one query key from a primary document;
> querying at least one data source with the at least one query key;
> receiving at least one query result from at least one data source;
> evaluating the received at least one query result;
> displaying at least one received query result;
> determining whether an additional query should be performed; and
> responsive to a determination that an additional query should be performed:
> formulating an additional query containing at least one secondary query key;
> querying at least one data source with the at least one secondary query key;
> receiving at least one secondary query result from at least one data source; and
> displaying at least one received secondary query result;
> wherein extracting, querying, receiving, and evaluating are performed without user interaction."

The claimed method performs unconscious data retrieval with respect to a document. One or more one query keys are extracted from the document. A data source is queried with the query key(s), and one or more query results are received. Query result(s) are then evaluated and displayed. If it is determined at an additional query should be performed, an additional query is formulated containing one or more secondary query keys. A data source is queried with the secondary query

key(s), and one or more secondary query results are received. Secondary query result(s) are then displayed.

The steps of extracting query key(s), querying data source(s), receiving query result(s), and evaluating query result(s) are performed without user interaction. Thus, extraction, querying, receiving, and evaluation can take place at times when the user is or is not interacting with the document; for example, such actions can take place at times when a connection of sufficient bandwidth is available and/or inexpensive.

In this manner, the method of the present invention provides a novel mechanism for obtaining, evaluating, and presenting useful information to a user. Information can be obtained without receiving a query from the user and in a manner that does not require user interaction. The user need not initiate the transfer, nor need he/she even be aware that information transfer is taking place.

In the Office Action, the Examiner stated that claim 30 is rejected on grounds corresponding to the arguments given for rejected claim 1. Accordingly, for at least the reasons given above in connection with claim 1, claim 30 is submitted to be patentably distinct over the cited references.

In addition, claim 30 specifically recites that extracting, querying, receiving, and evaluating are performed without user interaction. Neither of the cited references teaches or discloses such a technique. In fact, as noted above, Chidlovskii

teaches pre-processing and post-processing operations that are performed in direct response to a user's action in initiating a search. See, for example, col. 8, lines 35-41: "Once a user has formulated a query, the search pre-processor takes the query and processes the keywords in the query to a query profile .... This profile is used by the search post-processor later. When the query is submitted to a search engine and the search result returns, the user sees the documents determined from the search query, listed or ranked in accordance with the algorithm provided by the particular search engine(s), if any."

Since the pre- and post-processing takes place in direct response to a user's action in initiating a search, Chidlovskii fails to teach any technique of performing query operations without user interaction.

In fact, Chidlovskii actually teaches away from the claimed invention, by explicitly discussing a technique for performing pre- and post-processing in response to a user-entered query and ranking results after receiving the query.

Accordingly, it is respectfully submitted that claim 30 is patentably distinct from the cited references, taken alone or in any combination.

Claim 31 depends from claim 30 and incorporates all of the limitations of claim 30. Accordingly, for at least the reasons set forth above, this dependent claim is submitted to be patentably distinct from the cited references.

Claims 55 and 61 recite limitations similar to those discussed above in connection with claim 30. Accordingly, for at least the reasons set forth above, these claims are submitted to be patentably distinct from the cited references.

Claims 62-66, 68, 74-77, and 80-98 are system claims that recite limitations similar to those discussed above in connection with claim 1. Accordingly, for at least the reasons set forth above, these claims are submitted to be patentably distinct from the cited references.

Claims 69-73 are system claims that recite limitations similar to those discussed above in connection with claim 13. Accordingly, for at least the reasons set forth above, these claims are submitted to be patentably distinct from the cited references.

Claims 78-79 are system claims that recite limitations similar to those discussed above in connection with claim 30. Accordingly, for at least the reasons set forth above, these claims are submitted to be patentably distinct from the cited references.

Claims 99-131 are computer program product claims that recite limitations similar to those variously discussed above. Accordingly, for at least the reasons set forth above, these claims are submitted to be patentably distinct from the cited references.

On the basis of the above amendments, consideration of this application and the early allowance of all claims herein are requested.

Should the Examiner wish to discuss the above amendments and remarks, or if the Examiner believes that for any reason direct contact with Applicants' representative would help to advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,
Derek E. Poppink, et al.

Dated: SEP 20/06

By: _____

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